

IN THE CLAIMS:

Please cancel claims 3 and 18, without prejudice.

Please amend claims 1, 2, 4-6, 12-16 and 19-21, as follows:

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1. (Amended) A high fidelity insert earphone comprising:
receiver means for generating an acoustic output signal as a function of an input electrical signal, said receiver means including terminals for receiving an input electrical signal and an outlet for propagation of said acoustic signal therefrom, electrical coupling means for coupling said terminals to a source of electrical signals, acoustic coupling means for insertion into an entrance of an [ear canal] earcanal of a user and having [a] an opening therethrough, housing means including a chamber portion providing a chamber for said receiver means and including a tubular portion supported within said opening of said acoustic coupling means and defining a passage having an inlet end portion in [communication with] acoustically sealed relation to said outlet of said receiver means and an opposite outlet end portion for propagation of said acoustic signal into said earcanal, and acoustic damper means supported within said outlet end portion of said passage of said tubular portion, said passage including a portion filled with air and extending between said outlet end of said receiver means and said acoustic damper means with a length such as to cooperate with said acoustic damper means in providing a damped coupling assembly operative to provide compensation for a loss of external-ear resonance which results from said insertion of

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said acoustic coupling means into an entrance of an earcanal of a user.

2. (Amended) A high fidelity insert earphone as defined in claim 1, said acoustic damper means comprising a tubular support member and a screen supported by said support member, said tubular support member being press-fitted into said outlet end portion of said passage, and said passage being formed with an internal shoulder engaged by one end of said tubular support member during installation of said acoustic damper means to limit movement toward said receiver means and to provide said portion extending between said outlet end of said receiver means and said acoustic damper means.

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a2 cont.
4. (Amended) A high fidelity insert earphone [as defined in claim 3,] comprising: receiver means for generating an acoustic output signal as a function of an input electrical signal, said receiver means including terminals for receiving an input electrical signal and an outlet for propagation of said acoustic signal therefrom, electrical coupling means for coupling said terminals to a source of electrical signals, acoustic coupling means for insertion into an entrance of an earcanal of a user and having an opening therethrough, housing means including a chamber portion providing a chamber for said receiver means and including a tubular portion supported within said opening of said acoustic coupling means and defining a passage having an inlet end portion in communication with said outlet of said receiver means and an opposite outlet end portion for propagation of said acoustic signal

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into said earcanal, and acoustic damper means supported within said outlet end portion of said passage of said tubular portion, wherein said chamber portion of said housing means includes an outer wall in surrounding relation to said receiver means and an end wall from which said tubular portion projects and wherein said receiver means includes an [output] outlet tube projecting from an end surface of said receiver means and inserted into said inlet end portion of said passage of said housing means, and [resilient] mounting means for minimizing problems with noise and vibrations while facilitating assembly of said receiver means in said housing means, said resilient mounting means including resilient foam material compressed during assembly [positioned] between said end surface of said receiver means and an inside surface of said end wall of said chamber [means] portion and also between an outer peripheral surface of said receiver means and an inner surface of said outer wall of said chamber portion.

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5. (Amended) A high fidelity insert earphone as defined in claim 4, said resilient [mounting means] foam material being [formed from] in the form of a generally rectangular piece of a resilient sheet material having a central opening, and said output tube during installation of said receiver means being extended through said central opening and into said inlet end portion of said passage while said piece of sheet material is folded back around said receiver.

6. (Amended) A high fidelity insert earphone [as defined in claim 3,] comprising: receiver means for generating an acoustic

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output signal as a function of an input electrical signal, said receiver means including terminals for receiving an input electrical signal and an outlet for propagation of said acoustic signal therefrom, electrical coupling means for coupling said terminals to a source of electrical signals, acoustic coupling means for insertion into an entrance of an earcanal of a user and having an opening therethrough, housing means including a chamber portion providing a chamber for said receiver means and including a tubular portion supported within said opening of said acoustic coupling means and defining a passage having an inlet end portion in communication with said outlet of said receiver means and an opposite outlet end portion for propagation of said acoustic signal into said earcanal, and acoustic damper means supported within said outlet end portion of said passage of said tubular portion, wherein said chamber portion of said housing means includes an outer wall in surrounding relation to said receiver means and an end wall from which said tubular portion projects and wherein an end section of said tubular portion of said housing means is of enlarged size to provide internal and external shoulders, said internal shoulder being operative to limit movement of said acoustic damper means toward said receiver means during assembly so as to accurately fix the position of said acoustic damper means and said [to provide a] external shoulder being in facing relation to an outer surface of said end wall of said chamber portion, and wherein said acoustic coupling means includes a resilient material which in assembly is stretched over said end section to then expand into the space

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between said external shoulder and said end wall.

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12. (Amended) An earphone subassembly for providing a high fidelity earphone upon installation in an opening in an acoustic coupling means which is insertable into an entrance of an [ear canal] earcanal of a user and which is of any one of a number of different types including custom earmolds and ear tips of foam material, said earphone subassembly comprising: receiver means for generating an acoustic output signal as a function of an input electrical signal, said receiver means including an outlet for propagation of said acoustic signal therefrom, housing means including a chamber portion providing a chamber for said receiver means and including a tubular portion arranged to be supported within said opening of said acoustic coupling means and defining a passage having an inlet end portion in [communication with] acoustically sealed relation to said outlet of said receiver means and an opposite outlet end portion for propagation of said acoustic signal into said earcanal, and acoustic damper means supported within said outlet end portion of said passage of said tubular portion, said passage including a portion filled with air and extending between said outlet end of said receiver means and said acoustic damper means with a length such as to cooperate with said acoustic damper means in providing a damped coupling assembly operative to provide compensation for a loss of external-ear resonance.

13. (Amended) A high fidelity insert earphone as defined in claim 12, said acoustic damper means comprising a tubular

support member and a screen supported by said support member, said tubular support member being press-fitted into said outlet end portion of said passage, and said passage being formed with an internal shoulder engaged by one end of said tubular support member during installation of said acoustic damper means to limit movement toward said receiver means and to provide said portion extending between said outlet end of said receiver means and said acoustic damper means.

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Q3 cont. 14. (Amended) An earphone subassembly [as defined in claim 13] for providing a high fidelity earphone upon installation in an opening in an acoustic coupling means which is insertable into an entrance of an earcanal of a user and which is of any one of a number of different types including custom earmolds and ear tips of foam material, said earphone subassembly comprising: receiver means for generating an acoustic output signal as a function of an input electrical signal, said receiver means including terminals for receiving an input electrical signal and an outlet for propagation of said acoustic signal therefrom, electrical coupling means for coupling said terminals to a source of electrical signals, acoustic coupling means for insertion into an entrance of an earcanal of a user and having an opening therethrough, housing means including a chamber portion providing a chamber for said receiver means and including a tubular portion supported within said opening of said acoustic coupling means and defining a passage having an inlet end portion in communication with said outlet of said receiver means and an opposite outlet end

Q3 cont.
portion for propagation of said acoustic signal into said earcanal,
and acoustic damper means supported within said outlet end portion
of said passage of said tubular portion, wherein said chamber
portion of said housing means includes an outer wall in surrounding
relation to said receiver means and an end wall from which said
tubular portion projects, and wherein said receiver means includes
an outlet tube projecting from an end surface of said receiver
means and inserted into said inlet end portion of said passage of
said housing means, and mounting means for minimizing problems with
noise and vibrations while facilitating assembly of said receiver
means in said housing means, said resilient mounting means
including resilient foam material compressed during assembly
between said end surface of said receiver means and an inside
surface of said end wall of said chamber means and also between an
outer surface of said receiver means and an inner surface of said
outer wall of said chamber portion.

15. (Amended) An earphone subassembly [as defined in
claim 14] for providing a high fidelity earphone upon installation
in an opening in an acoustic coupling means which is insertable
into an entrance of an earcanal of a user and which is of any one
of a number of different types including custom earmolds and ear
tips of foam material, said earphone subassembly comprising:
receiver means for generating an acoustic output signal as a
function of an input electrical signal, said receiver means
including terminals for receiving an input electrical signal and an
outlet for propagation of said acoustic signal therefrom,

Q3 cont.

electrical coupling means for coupling said terminals to a source of electrical signals, acoustic coupling means for insertion into an entrance of an earcanal of a user and having an opening therethrough, housing means including a chamber portion providing a chamber for said receiver means and including a tubular portion supported within said opening of said acoustic coupling means and defining a passage having an inlet end portion in communication with said outlet of said receiver means and an opposite outlet end portion for propagation of said acoustic signal into said earcanal, and acoustic damper means supported within said outlet end portion of said passage of said tubular portion, wherein said chamber portion of said housing means includes an outer wall in surrounding relation to said receiver means and an end wall from which said tubular portion projects, wherein said tubular portion of said housing means is formed to provide [a] internal and external shoulders, said internal shoulder being engaged by said acoustic coupling means to limit movement of said acoustic coupling means toward said end wall during assembly and said external shoulder being in facing relation to an outer surface of said end wall of said chamber portion and arranged to receive a portion of said acoustic coupling means of reduced cross-sectional size dimensioned to be positioned between said wall portion of said housing and said shoulder of said tubular portion to releasably lock said housing means and said acoustic coupling means together.

16. (Amended) A method of making an earphone, comprising the steps of providing a receiver including input electrical

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terminals at one end and an acoustic outlet tube projecting from an opposite end, providing an acoustic damper including a tubular support and a screen supported by said tubular support, molding from plastic a housing member which includes a chamber portion for said receiver and a tubular portion defining a passage extending from said chamber, providing a cable which includes a casing and conductors supported by said casing, providing an end cap for said chamber portion of said housing member, connecting said casing of said cable to said end cap, coupling said conductors of said cable to said input electrical terminals of said receiver, [and] installing said receiver in said chamber to insert said outlet tube into one end of said passage after said coupling of said conductors to said terminals, securing said end cap to said housing member after said installing of said receiver in said chamber, and installing said acoustic damper in the opposite end of said passage.

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19. (Amended) A high fidelity insert earphone assembly comprising a pair of insert earphones for insertion in ears of a user, each of said insert earphones including receiver means having electrical terminal means and an outlet for propagation of an acoustic signal generated as a function of an input electrical drive signal applied to said terminal means, and each of said insert earphones having characteristics such as to require increased drive at higher frequencies for optimum high fidelity reproduction, and a cable assembly for applying drive signals to said receiver means of said insert earphones, said cable assembly

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including a connector unit for connection to sources of electrical drive signals for said receiver means, a junction unit, a pair of separate cables of substantially equal length connected between said junction unit and said terminal means of said receiver means of said insert earphones, a common cable connected [to said] between said junction unit and said connector unit, and a pair of electrical coupling means in said junction unit coupled between said common cable and said pair of separate cables [and arranged for providing increased response at high frequencies] ,each of said electrical coupling means including circuit means operative to increase the drive signal applied to the corresponding receiver means as a function of increasing frequency.

20. (Amended) A high fidelity insert earphone assembly as defined in claim 19, wherein each of said insert earphones includes [receiver means for generating an acoustic output signal as a function of an input electrical signal, said receiver means including terminals for receiving an input electrical signal from one of said pair of cables, and an outlet for propagation of said acoustic signal therefrom, electrical coupling means for coupling said terminals to a source of electrical signals,] acoustic coupling means for insertion into an entrance of an [ear canal] earcanal of a user and having [a] an opening therethrough, housing means including a chamber portion providing a chamber for said receiver means and including a tubular portion supported within said opening of said acoustic coupling means and defining a passage having an inlet end portion in communication with said outlet of